Feiqin Xie, Ph. D.

Mailing Address	Telephone/Fax	Emails
9258 Boelter Hall, Box 957228	818-354-1165 (Phone)	fxie@jifresse.ucla.edu
JIFRESSE, UCLA, Los Angeles, CA 90095	818-393-4619 (Fax)	feiqin.xie@jpl.nasa.gov

AREARS OF INTEREST

Satellite remote sensing of the atmosphere, space-borne and airborne GNSS radio occultation technique, boundary layer, tropopause dynamics and diurnal variations studies.

EDUCATION

Ph.D. University of Arizona, 2006
Atmospheric Sciences

M.S. Peking University (China), 2001
Atmospheric Physics and Atmospheric Environment

B. S. Lanzhou University (China), 1998 (with honor)
Atmospheric Physics and Atmospheric Environment

PROFESSIONAL EXPERIENCE

Assistant Researcher (2009 – present)
Joint Institute for Regional Earth System Science and Engineering,
University of California, Los Angeles, CA
Earth Science Division at Jet Propulsion Laboratory (Affiliate), Caltech, CA

Caltech Postdoctoral Scholar (2008 – 2009)
Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA

Postdoctoral Fellow (2006 – 2008)
Department of Earth and Atmospheric Sciences, Purdue University, West Lafayette, IN

Graduate Research Assistant (2001 – 2006)
Department of Atmospheric Sciences, University of Arizona, Tucson, AZ

Graduate Teaching Assistant (2004 – 2005)
Department of Atmospheric Sciences, University of Arizona, Tucson, AZ
Radiative Transfer & Introduction to Weather and Climate

Graduate Research Assistant (1998 – 2001)
Center for Environmental Sciences, Peking University, Beijing, China

GRANTS AND FUNDING

National Science Foundation (NSF)/Climate and Large Scale Dynamics Program:
"Collaborative Research: Investigating the characteristics of lower tropospheric airborne GPS radio occultation observations and their impact in hurricane studies". Co-Principal-

Investigator: Feiqin Xie ($266,637 at UCLA). In collaboration with Professor J. S. Haase (Co-PI at Purdue University) and Professor S-H Chen (Co-PI at University of California, Davis), total of $947,041, NSF 09-29, 2010-2013.

National Oceanic and Atmospheric Administration (NOAA), NESDIS-NESDISPO-2008-2001042: Research in Satellite Data Assimilation for Numerical Weather, Climate, and Environmental Forecast Systems: "Improving the Impact of GPSRO Data Assimilation in the Lower Troposphere". PI: Dr. E. R Kursinski (University of Arizona), Co-I: Feiqin Xie (UCLA), $227,373, NA08NES4400015, NOAA, 2009-2011.

PEER-REVIEWED PUBLICATIONS

Xie, F., D. L. Wu, C. O. Ao, E. R. Kursinski and A. Mannucci, 2011: Advances and limitations of atmospheric boundary layer observations with GPS Occultation over southeast Pacific Ocean, *Atmospheric Chemistry & Physics*, submitted.

Ao, C. O., D. E. Waliser, J.-L. Li, T. K. Chan, B. Tian, and **F. Xie**, 2011, Planetary Boundary Layer Depths from GPS Radio Occultation Profiles, *J. Geophys. Res.*, submitted.

Xie, F., D. L. Wu, C. O. Ao, E. R. Kursinski, A. Mannucci and S. Syndergaard, 2010: Super-refraction effects on GPS radio occultation refractivity in marine boundary layers, *Geophys. Res. Lett.*, 37, L11805, doi:10.1029/2010GL043299.

Xie, F., D. L. Wu, C. O. Ao, A. Mannucci, 2010: Atmospheric diurnal variations observed with GPS radio occultation soundings, *Atmospheric Chemistry and Physics*, 10, 1–11, doi:10.5194/acp-10-1-2010.

Muradyan, P., J. S. Haase, **F. Xie**, J. L. Garrison, and J. Voo, 2010: GPS/INS navigation precision and its effect on airborne radio occultation retrieval accuracy, *GPS Solutions*, doi: 10.1007/s10291-010-0183-7.

Xie, F., J. S. Haase, S. Syndergaard, 2008: Profiling the Atmosphere Using the Airborne GPS Radio Occultation Technique: A Sensitivity Study, *IEEE Transactions on Geoscience and Remote Sensing*, doi:10.1109/TGRS.2008.2004713.

Xie, F., S. Syndergaard, E. R. Kursinski and B. M. Herman, 2006: An Approach for Retrieving Marine Boundary Layer Refractivity from GPS Occultation Data in the Presence of Super-refraction, *J. Atmos. Oceanic Technol*, 23, 1629-1644.

Cai, X., **F. Xie**, and J. Chen, 2002: Large-eddy Simulation for Unstable Surface Layers, *Acta Scientiarum Naturalium Universitatis Pekinensis* (in Chinese with English Abstract), 38 (5), 698-704.

Li, Y., X. Cai, **F. Xie**, 2002: Recent Variations of Total Ozone Over East Asia, *Environmental Science* (in Chinese with English Abstract), 23(supplemental), 103-105.

Xie, F., and X. Cai, 2000: Spatial and Temporal Variation of Total Ozone Over East Asia and Europe: An Inter-Comparison, *J. Environ. Sci. Health*, A35 (10), 1923-1930.

Xie, F., and X. Cai, 2000: Spatial and Temporal Variation of Total Ozone Over East-Asia, *Acta Scientiae Circumstantiae* (in Chinese with English Abstract), 20 (5), 513-517.

SELECED PRESENTATIONS IN SYMPOSIUMS AND CONFERENCES

Xie, F., D. L. Wu, C. O. Ao, A. J. Mannucci and E. R. Kursinski: Characteristics of atmospheric boundary layer structures over subtropical stratocumulus regions, AGU Fall Meeting, San Francisco, California, December 13-17, 2010.

Ao, C. O, **F. Xie**, Y. Zhang, D. J. Seidel, J. E. Kay, C. Deser: High-Latitude Inversion Layers from GPS Radio Occultation Observations, AGU Fall Meeting, San Francisco, California, December 13-17, 2010.

Xie, F., D. L. Wu, C. O. Ao, E. R. Kursinski and A. J. Mannucci: Stratocumulus-topped atmospheric boundary layers: GPS RO observations vs. ECMWF analysis, 19th Symposium on Boundary Layers and Turbulence, sponsored by the American Meteorological Society, Keystone, Colorado, August 2-6, 2010.

Xie, F., D. L. Wu, C. O. Ao, A. J. Mannucci: Observing the diurnal cycle with GPS/COSMIC occultations, 90th AMS Annual Meeting, Atlanta, Georgia, January 17-21, 2010.

Xie, F., D. L. Wu, C. O. Ao, E. R. Kursinski, A. J. Mannucci and S. Syndergaard: Profiling Stratocumulus-topped Boundary Layers with GPS Radio Occultation, AGU Fall Meeting, San Francisco, California, December 14-18, 2009.

Xie, F., D. L. Wu, C. O. Ao, A. J. Mannucci: Atmospheric diurnal cycle observed from GPS radio occultation soundings, Fourth FORMOSAT-3/COSMIC Data Users Workshop, Boulder, Colorado, October 27-29, 2009.

Xie, F., D. L. Wu, C. O. Ao, A. J. Mannucci, B. Iijima and M. Pestana: Atmospheric diurnal and semi-diurnal variations observed from GPS radio occultation soundings, Global Navigation Satellite System Radio Occultation Workshop, Pasadena, California, April 7-9, 2009.

Teixeira, J., A. J. Mannucci, C. O. Ao, D. L. Wu and **F. Xie**, Science Requirements – Atmosphere or Future observations of cloudy boundary layers and the cloud/climate feedback, Global Navigation Satellite System Radio Occultation Workshop, Pasadena, California, April 7-9, 2009.

Haase, J. S., **F. Xie**, Muradyan, P., J. L. Garrison, T. Lulich, J. Voo, F.G. Nievinski, and K. Larson, 2009: New Atmospheric Observations from the Airborne GNSS Instrument System for Multistatic and Occultation Sensing (GISMOS), AGU Fall Meeting, San Francisco, California, December 15-19, 2008.

Haase J. S., **F. Xie**, J. L. Garrison, T. Lulich, and E. Calais: Moisture Profiling with Radio Occultation on Aircraft and Stratospheric Balloons, Centre Nationale d'Etudes Spatiales Meeting, Toulouse, France, June 26, 2008.

Xie, F., J. S. Haase, T. Lulich, P. Muradyan, J. L. Garrison, S. Syndergaard and E. Calais: Profiling the Atmosphere with an Airborne GPS Receiver System, 88th AMS Annual Meeting, New Orleans, Louisiana, January 20-24, 2008.

Garrison, J. L., and M. Walker, J. S. Haase, T. Lulich, **F. Xie** and Coauthors, 2007: Development and testing of the GISMOS instrument, *IEEE International Geoscience and Remote Sensing Symposium (IGARSS)*, Barcelona, Spain.

Xie, F., J. S. Haase, S. Syndergaard, T. Lulich, P. Muradyan, J. L. Garrison and E. Calais: Error Estimation of Airborne GPS Radio Occultation Measurements: Simulation Analysis, Second FORMOSAT-3/COSMIC Data Users Workshop, Boulder, Colorado, October 22-24 2007.

Kursinski, E. R., **F. Xie** and C. O. Ao: Issues Regarding GPS RO-Derived Tropospheric Humidity, First FORMOSAT-3/COSMIC Data Users Workshop, Boulder, Colorado, October 16-18, 2006.

Xie, F.: Characterizing the Earth's Atmosphere Using GPS Radio Occultation Measurements: Opportunities and Challenges, Department of Earth and Atmospheric Sciences Seminar (Invited), Purdue University, August 31, 2006.

Xie, F., S. Syndergaard, E. R. Kursinski, C. O. Ao and B. M. Herman: An Approach for Retrieving Marine Boundary Layer Refractivity From GPS Occultation Data, AGU Fall Meeting, San Francisco, California, December 5-9, 2005

Xie, F., S. Syndergaard, E. R. Kursinski and B. M. Herman: Reconstruction of the Marine Boundary Layer Refractivity in the Presence of Super-refraction (Poster), Second GPS Radio Occultation Data Users' Workshop, Lansdowne, Virginia, August 22-24, 2005.

Xie, F., X. Cai and J. Chen: An Inter-Comparison of Spatial and Temporal Variation of Total Ozone over East Asia and Europe, the First National Conference on Environmental Simulation and Pollution Control, Beijing, China, November 4-5, 1999.

PROFESSIONAL AFFILIATIONS

American Geophysical Union, Full Member, since 2004
American Meteorological Society, Full Member, since 2005
Sigma-Xi, The Scientific Research Society, Full Member, since 2009
Chinese-American Oceanic and Atmospheric Association, since 2009

PROFESSIONAL SERVICES

PhD committee member for Ph.D. Student (Paytsar Muradyan), Department of Earth and Atmospheric Sciences, Purdue University

Reviewer for scientific journals: Journal of Atmospheric Sciences, Radio Science, Advances in Space Research, IEEE International Geoscience and Remote Sensing Symposium (IGARSS), IEEE Transactions on Geoscience and Remote Sensing (TGRS), GPS Solutions, Remote Sensing

HONORS AND AWARDS

Full Research Assistant Scholarship, University of Arizona, Tucson, Arizona, 2001-2006
GPSC Travel Scholarship, University of Arizona, Tucson, Arizona, 2005
Graduate Tuition Scholarship, University of Arizona, Tucson, Arizona, 2005
Outstanding Student Award, Peking University, Beijing, China, 2000
Honor Graduate Award, Lanzhou University, Lanzhou, Gansu, China, 1998